

REMARKS/ARGUMENTS

Claim 37 is rejected under 35 U.S.C. §112, second paragraph, as not distinctly claiming the subject matter. Reconsideration is respectfully requested. Claim 37 has been amended which now states “positioning said forth lens band in a macro mode substantially close to the forth lens band.” Amended claim 37 distinctly claims the subject matter and is now believed to be allowable.

Claims 1-6, 29, 30, 33-34, and 39-41 are rejected under 35 U.S.C. §102(b) as being anticipated by Yahagi. Reconsideration is respectfully requested. Claims 1-3, 29, 30, 33, and 39-40 have been cancelled.

Claims 4 has been rewritten in independent form to include the limitations of cancelled claim 1. Reconsideration is respectfully requested. Amended claim 4 should be allowable because Yahagi does not meet the claimed inequality, the applicable values disclosed in Yahagi obtain different results from the invention recited in claim 4. Claims 4 and 5 depend from independent claim 4 and are believed to be allowable along with claim 4 because of the additional limitations recited therein.

Claim 41 has been amended and rewritten into independent form incorporating the limitations of cancelled claim 40. Reconsideration is respectfully requested. Amended claim 41 discloses a “fifth lens band” in which the fifth lens band performs focusing during zooming. Yahagi does not teach or suggest a fifth lens band as described in amended claim 41. Therefore, for at least the above stated reason, claim 41 is believed to be allowable.

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Claims 7-28, 31, 36 and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claims and any intervening claims. Reconsideration is respectfully requested. Claims 7 and 31 have been amended, and claims 43-86 have been added.

Claim 7 and 31 has been rewritten in independent form to include the limitations of claim 1 and 23, respectively. Furthermore, claims 43 and 44 have been added to include the limitations of claims 2 and 7, and 3 and 7, respectively. Amended claims 7 and 31, and new claims 43 and 44 has been rewritten according to the examiner's instructions and are now believed to be allowable. Claims 8-28, depend from independent claim 7 and are believed to be allowable along with claim 7 and because of their additional limitations. Claims 32, 34, and 36 -38 depend from independent claim 31 and are believed to be allowable along with claim 31 and because of their additional limitations. Claims 45-65, depend from independent claim 43 and are believed to be allowable along with claim 43 and because of their additional limitations. Claims 66-86, depend from independent claim 44 and are believed to be allowable along with claim 44 and for their additional limitations

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with markings to show changes made."

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

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Respectfully submitted,

By 

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Version With Markings to Show Changes Made

4. (Amended) [The camera apparatus according to claim 1,] A camera apparatus comprising a zoom lens, said zoom lens comprising:

a first lens band having a positive focal length;

a second lens band having a negative focal length;

at least third to fifth lens bands having positive focal lengths; and

an aperture diaphragm located in the vicinity of the third lens band;

wherein, said second lens band smoothly moves toward the third lens band and said fourth lens band moves from the fifth lens band side toward a long focal point end so as to share a magnifying function together with the second lens band, when magnification is performed from short to long focal point ends.

wherein a distance (D_{1W}) between the first and second lens bands in the short focal point end arrangement, a distance (D_{1T}) between the first and second lens bands in the long focal point end arrangement, a distance (D_{3W}) between the third and fourth lens bands in the short focal point end arrangement, and a distance (D_{3T}) between the third and fourth lens bands in the long focal point end arrangement substantially meet the following inequality:

$$(D_{3W} - D_{3T}) / (D_{1T} - D_{1W}) > 0.3.$$

5. (Amended) The apparatus according to [any one of]claim[s 1 and 3]4, wherein the first lens band faces an object to be photographed.

6. (Amended) The apparatus according to [any one of]claim[s 1 and 3]4, wherein said fourth lens band comes closest to the third lens band at a focal length slightly before the long focal point end.

7. (Amended) [The]A camera apparatus [according to any one of claims 1]comprising a zoom lens, said zoom lens comprising:

a first lens band having a positive focal length;
a second lens band having a negative focal length;
at least third to fifth lens bands having positive focal lengths; and~~3,~~
an aperture diaphragm located in the vicinity of the third lens band;
wherein, said second lens band smoothly moves toward the third lens band and
said fourth lens band moves from the fifth lens band side toward a long focal point end so
as to share a magnifying function together with the second lens band, when magnification
is performed from short to long focal point ends; and

wherein a variance of an image surface caused by the smooth movements of said second and fourth lens bands is compensated by movement of the fifth lens band in a predetermined direction.

31. (Amended) [The method according to claim 29,] A method for zooming,
comprising the steps of:

providing a first lens band having a positive focal length;
providing a second lens band having a negative focal length;
providing at least third to fifth lens bands having positive focal lengths; and
providing an aperture diaphragm located in the vicinity of the third lens band;
smoothly moving said second lens band toward the third lens band;
substantially simultaneously moving said fourth lens band from the fifth lens band
side toward a long focal point end so as to share a magnifying function together with the
second lens band when magnification is performed from short to long focal point ends.

further comprising the step of compensating a variance of an image surface caused by the smooth movements of said second and fourth lens bands with movement of the fifth lens band in a predetermined direction.

32. (Amended) The method according to claim [29,]31, further comprising the step of fixing said first lens band when said magnification is performed.

34. (Amended) The method according to claim [29]31, further comprising the step of performing focusing with the fifth lens band when said magnification is performed.

36. (Amended) The method according to claim [29]31, further comprising the step of focusing at a shorter distance than an ordinal photographing region by moving the fifth lens band in a predetermined direction in any one of the ordinal photographing region and the macro mode.

37. (Amended) The method according to claim [29]31, further comprising the step of positioning said fourth lens band in a macro mode substantially close to the fourth lens band in the long focal point end arrangement for the macro mode.

38. (Amended) The method according to claim [29]31, further comprising the step of positioning said second lens band substantially closer to the image surface than when it is in the short focal point end arrangement for the macro mode.

41. (Amended) [The camera apparatus according to claim 40,] A camera apparatus comprising zoom means for performing zooming, said zoom means comprising: first means for deflecting a light, said first means having a positive focal length; second means for deflecting the light, said second means having a negative focal length; at least third to fifth means for deflecting the lights, said at least third to fifth means having positive focal lengths; and means for narrowing the light in the vicinity of the third means; wherein, said second means smoothly move toward the third means and said fourth means move from the fifth means side toward a long focal point end so as to share a magnifying function together with the second means when magnification is performed from short to long focal point ends.

wherein said fifth means perform focusing during zooming.

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